

**For: Heather Kendall-Smith**  
**Native American Rights Fund**

**From: Jim Powell, PhD**  
**Center for Science in Public Participation**

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## **Introduction**

Here are my comments on HDR's Revised Functional Assessment Methods for the proposed Chuitna Coal Project, prepared for PacRim Coal LP, Dated August 2012. My comments are based primarily on the information contained in the document, a limited site visit in July, 2012, of the shoreline adjacent to the proposed area to be mined and a brief flyover of the proposed mine site. There are several general or overarching comments as well as specific comments you may want to consider.

## **General comments**

The revised report referenced above is well done and appears to include reasonable assumptions and information, field work, and applicable reference material to base their selection of wetland functions. The authors appear to have used some of the suggestions from state and federal agencies to improve the report.

Climate change: Climate change is causing observable and measurable changes to biophysical processes and functions, including wetlands in Alaska. There is no reference to climate change nor is there any material included in the report regarding the effects of climate change on wetland functions.

Use of wetland functions: Although the purpose of the HDR report is to summarize and decide which wetland functions are appropriate for use in the Corps of Engineers (COE) Section 404 permitting process, it is not clear in the report which part of the permitting process will use the wetland functions. For example, are the wetland functions and models in this report envisioned to be used for obtaining a permit to calculate wetland loss or mitigation ratios, reclamation, or are they to be used for determining a mitigation bank? How will the functional assessment models be used? For example, mitigation banks may require a lesser number of functions. How many functions should be included? There needs to be a clearer description of how they will be used to ensure that the appropriate functions are included.

## **Specific comments**

Below are specific questions or comments about the report organized by the report's numbering system.

Page 1, Paragraph 2, line 1. A reference for the requirement that a functional assessment is required would help clarify and support the statement. There are many references available. One can be found in the COE Research Report Summary, November 1995, which is referenced in several of the COE Hydrogeomorphic Regional Guidebooks.

Page 1. Last paragraph. Please include a rationale for excluding marine and intertidal areas from the functional assessment. Although wetland functions are usually restricted to the project area, conducting a functional assessment normally includes consideration of the surrounding landscape, which in this case may include the estuary and intertidal areas.

Page 3. The use of GIS-based landscape scale approach for conducting the wetland functional assessment appears reasonable.

Page 4. Section 3.2.2 and beyond – Selected Functions. Adding an additional four functions is reasonable considering the hydrology and abundance of wildlife. Also, the large area being considered needs a variety of wetland functions. In selecting the functions and indicators, were indicators assigned different or similar value? The assumption is not clear that the indicators for each function is weighted equally or given a different value.

Page 5. Did Alaskan Natives have an opportunity to provide local knowledge or have a role in determining the functions (or value) of the wetlands.

Page 6. Toxiant Retention. It appears that iron is a primary concern. If that is the case why not refer to this function as Iron or metals retention?

END